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SOME NEW POINTS IN THE TREATMENT OF TUBERCULOSIS.

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On November 12, 1890, I read a paper before the Philadelphia County Medical Society, in which I casually called attention to the use of iodoform by inunction in the treatment of tuberculosis. At that time my experience with this method of treatment was so limited that I did not care to announce my results, except in the most general way. Since then I have treated a comparatively large number of cases by this method, and with such results as will justify me in speaking in positive terms about the matter, and bringing it before you for your consideration. I will first give the clinical history of some of the cases which I have treated, and will then lay down some rules of practice which I believe can be deduced:

CASE I.1-Female, aged twenty-six years, single, housekeeper, in comfortable circumstances; has been tuberculous for about two years. Has had two sisters die of tuberculosis. Took the disease herself whilst nursing one of her sisters. Had small deposit in apex of one lung, was coughing a great deal, was losing flesh rapidly-in short, had all the symptoms of the early stage of tuberculosis of the lungs. Went to the country to live, and remained there about six months. Returned very much improved in health. Cough had almost entirely disappeared, and the lung had cleared up, but she had not regained her weight. Shortly after returning to the city she again began to cough and lose strength. An ulcer developed in the right lower eyelid, which grew to the size of a silver quarter-dollar, and which she believed to be a stye. After applying home remedies for some time without obtaining any relief, she consulted me about the eye. Found her general condition much worse than it had been at any time. There was some impairment of resonance over both apices, she was coughing a great deal, especially in the morning, had no appetite, was pale, and complained a great deal of lassitude and indisposition to work. In the lower eyelid there was an ulcerated mass which upon the

¹ Cases I., II., III., VIII., and IX., were exhibited to the physicians present at the meeting.

mucous surface secreted pus. Microscopic examination of this pus showed tubercle bacilli. Ordered her pepsin, hydrochloric acid, digitalis, and calisaya bark internally; inunctions of saturated solution of iodoform in cod-liver oil, and calomel dusted on inner surface of evelid. Kept up this treatment for some time, when the dusting of calomel was discontinued on account of irritation, and inunctions of iodoform and tonic treatment alone used. For a time, also gave iodoform by the mouth, and for a very short time gave creasote internally. The main treatment at all times has been iodoform inunction, and during a considerable part of the time no other treatment has been used. At the end of six months' treatment all external signs of lupus had disappeared, and the internal surface of the eyelid was almost normal, there being merely a slight thickening of the mucous membrane. The lungs had entirely cleared up, as far as could be made out by physical examination. There was no cough, no feeling of fatigue-in short, no symptoms known to the patient indicative of disease. She had gained about six pounds in weight, and was gaining at the rate of one pound a week. She continued, however, to have a tubercular appearance, and informed me that she always had a very high color in the evening. Recently she has had an attack of influenza, from which she has not entirely recovered as yet. She has at present a slight impairment of resonance over right apex, and some prolongation of expiratory murmur, both of which symptoms have come on since she had influenza.

Case II.—Boy, aged about twelve years, going to school, of a poor but most respectable family, began to show symptoms of tuberculosis about nine months ago. Every member of his family has had or now has tuberculosis, and his father, mother, and one sister have died of the disease. Disease first showed itself by malaise, fever, hemorrhages, and a very severe cough. Had anorexia, and rapidly lost flesh. Put him on the usual treatment for acute tuberculosis, without any apparent effect. After a short time I stopped all internal medication and put him on iodoform inunctions. For a short time also gave him creasote internally. From the time inunctions were begun, his condition improved, and he gradually ceased coughing, regained his strength, gained in weight, and at present, after six months' treatment, is apparently perfectly well. The only treatment used for any length of time was the inunctions.

Case III.—Sister of Case II., aged about twenty-four years, housekeeper; began to develop symptoms of tuberculosis about a year ago. Disease first manifested itself by breaking down of axillary glands. Rapid emaciation followed, and a severe dry cough. Had some symptoms of tubercular trouble in pelvis. Put her on inunctions of iodoform solution, and gave her creasote internally. After a short time, discontinued the creasote and kept up the inunctions. Pelvic symptoms entirely disappeared, appetite became very good, cough disappeared, and her general condition improved. For a time I was under the impression that this case had recovered, but within the last few weeks she has again developed some cough, and has other symptoms of a recurrence of the disease. She has been closely housed up nursing her dying father, who has just succumbed to the disease, and it is possible that this has contributed to her relapse.

CASE IV.—Male, aged twenty-five years, meat-vender, in very good circumstances; has been tuberculous about a year. Was under skilful treat-

ment for three months prior to coming to me. At the time 1 first saw him he had lost twenty-three pounds, felt very weak, was very short of breath, had no appetite, coughed a great deal—cough keeping him awake at night—and had morning diarrhoea. Put him on inunctions of iodoform and tonic treatment. After a few weeks gave creasote internally, in addition to the inunctions. At the end of two months' treatment he had regained nearly all the weight he had lost, had an excellent appetite, coughed very little, bowels were normal, was able to walk long distances without getting short of breath, and presented the appearance of general good health. About this time he had a severe attack of influenza, which came on suddenly with a temperature of 105°, running a very severe course, and which left him so prostrated that he is only now beginning to be able to be about again. A recrudescence of the tubercular trouble has undoubtedly been started by the attack of influenza, but nevertheless his condition is at present good. His weight at present is nearly the same as before he had the attack of influenza.

CASE V.-Male, aged twenty-four years, metal-spinner, in comfortable circumstances; has been tuberculous about two years. No consumption in his family. His first symptoms were those of abdominal tuberculosis. Had a fistula cut about a year ago. When he first came to me, about six months ago, he had just been compelled to lay off from work. He had lost twenty pounds in weight, had a harassing cough, but no expectoration, was very hoarse, had sore-throat, no appetite, and felt generally broken up. Gave a history of having had a severe hemorrhage in the beginning of his disease. Could find very little evidence of lung disease, the only physical signs being impairment of resonance over left, and some harsh breathing over right apex. Put him on iodoform and pepsin by mouth. Kept him on this treatment for a few weeks, with the result of improving his appetite, but with no other apparent improvement. Put him on inunctions of iodoform, and gave him tonics by the mouth. After some weeks, stopped the tonic and gave him creasote by the mouth, continuing the inunctions. Shortly after beginning treatment with me he resumed work, and has been working ever since. When he last reported to me he was enjoying comparatively good health, had gained about thirteen pounds in weight, had a good appetite, felt strong and able to work, but still coughed a good deal. I have hunted him up within the last few days, and found him in about the same condition as when he last came to He has not used my treatment since he left me.

Case VI.—Male, aged twenty-six, letter-carrier, in comfortable circumstances; has been tuberculous about five years. Disease progressed very slowly at first. When he came to me about six months ago, he had a large cavity in right apex, was coughing very much, was vomiting, had poor appetite, and his general condition was rather bad. Put him on tonic treatment, and after some time gave, in addition, iodoform by the mouth. Later on, also put him on inhalations of creasote. Kept him on this treatment for about six weeks, during which time his appetite improved, and the vomiting ceased, but his general condition remained about the same. Continued the tonic treatment, and put him on inunctions of iodoform. During the first month of this treatment he gained seven pounds. General condition also improved. Cough became much less, expectoration decreased, and patient became quite vigorous. Continued inunctions and put him on creasote internally in large doses.

Patient continued to do well for several months, when he took a trip to Florida. After a few weeks he returned with the disease again active. Has rapidly lost ground since. Is at present in bed with acute symptoms. Has consolidation of the apex of the other lung.

CASE VII.—Female, aged twenty-two years, store-girl, in comfortable circumstances; has had one brother die of tuberculosis, and has herself been tuberculous about two years. Disease probably began in the pelvis. When she first came to me she had what she termed a stomach-cough. Could find no evidence of tubercular deposit in the lungs. Put her on tonic treatment, and treated her for pelvic trouble. She got along well, but did not gain in weight. Put her on inunctions of iodoform, and gave her creasote internally. Under this treatment she gained upward of twenty pounds in about two months. All the symptoms improved, except the cough. Recently had a severe attack of influenza, since which time she has had a recrudescence of the tubercular trouble, and an evident extension of the disease. Cavities are forming in the lungs, and it looks as though the case would run a rapid course.

CASE VIII.—Male, aged thirty years, tinner, in comfortable circumstances; father died of tuberculosis; has been tuberculous about four years. First had what appeared to be a mild attack of apex pneumonia, from which he apparently recovered. About six months afterward had a severe hemorrhage, which was followed by acute symptoms of tuberculosis lasting for several months. Again got about, and was able to go to the country for the summer. Returned in autumn, considerably improved. Acute symptoms set in during the ensuing winter, which confined him to bed for several months, and almost proved fatal. He was too weak to go away in the following summer, but toward autumn regained sufficient strength to enable him to get away for a few weeks. At this time he weighed ninety-five pounds, was extremely short of breath, had night-sweats, a distressing cough (which was being controlled by opium), anorexia—in short, all the symptoms of the last stages of phthisis. His lungs were riddled with small cavities, and he had some large secreting cavities. I put him on inunctions of iodoform, and gave him creasote internally. He at once began to improve slowly. At present, after six months' treatment by this method, he weighs 115½ pounds, has a most excellent appetite, expectorates very little, has no sweats, no distressing cough although he is not taking any opiate, can walk from twenty-five to thirty city squares without fatigue, and has the appearance of fair health. The only distressing symptom that remains is shortness of breath, and that is improving. His chest is considerably deformed and contracted, and the physical signs show the lungs to have been seriously damaged. He is at present steadily gaining at the rate of about half a pound per week. That the improvement in this case is due to this treatment there can be no doubt, as he has been under my care from the beginning of his illness, and I had used every method of treatment on him of which I had any knowledge.

CASE IX.—Female, aged twenty-three years, no particular pursuit, in comfortable circumstances; was well until three months ago, when she took what appeared to be acute tuberculosis. Had very severe pains in region of pelvis, slight fever, anorexia, sleeplessness, and great prostration. Before being taken sick she weighed 128 pounds, and at the end of two months, although the acute symptoms had subsided, was reduced to 105½ pounds.

Could find no evidence of lung trouble at any time. Kept her on tonic treatment, and phenacetine for reduction of temperature for several weeks without much influence. Put her on inunctions of iodoform, and kept up the tonic treatment. Appetite at once picked up, and she is at present improving very rapidly. She has gained six pounds, and her general condition is much improved.

Case X.—Male, aged fifty-five years, laborer, in comfortable circumstances; has been tuberculous about six or eight months. Has catarrhal phthisis. When he first came under my treatment he was confined to the house, and suffering very much from shortness of breath. Had no appetite, coughed a good deal, and spat yellow sputa. Has been under treatment with inunctions of iodoform, tonics and creasote internally, for about two months. During the last four weeks he has gained four pounds in weight. At present he is able to be out every day, has a good appetite, does not spit much, and sputa are almost entirely white. His condition is much improved.

With these cases as a basis, I believe that I am justified in drawing deductions, and in announcing that I can offer some new points in the treatment of tuberculosis. The drugs, upon the use of which I feel that I can offer some new suggestions, are iodoform and creasote. I feel confident that iodoform is a specific in tuberculosis, when properly applied, and will cure where the disease has not yet advanced beyond the stage of deposit. I have for years used iodoform by the mouth in the treatment of tuberculosis, with good results, but it is only since I have used it by inunction, dissolved in cod-liver oil or in olive oil, that I have recognized its real value. Its curative powers are, however, limited to those cases in which the circulation has not yet been cut off from the deposit. Such are, apparently, Cases I., II., and IX., of the cases that I have reported. In cases which have advanced to the stage of breaking down, it acts much better when reinforced by large doses of creasote. I am quite sure that such cases will do better under treatment by both drugs than either drug by itself. Creasote seems to be specially indicated in the advanced stage of the disease. Iodoform is soluble in cod-liver oil or olive oil to the extent of about one in sixteen parts, being a little more soluble in cod-liver oil than in olive oil. When cod-liver oil is used it should be as fresh as possible; otherwise, the solution will turn black in a few days. A good, fresh oil will hold the iodoform unchanged for several weeks. The offensive odor of the iodoform is not much recognized in the solution, and what there is of it can be pretty well covered by oil of anise, and the unpleasant odor of the cod-liver oil, which is really the most objectionable, can be covered by a little oil of rose.

I have a few times seen what seemed to be toxic symptoms follow

the inunctions, but they disappeared soon after the inunctions had been intermitted. I have the patient well rubbed with the solution once a day. I advise the rubbing to be kept up for one-half to three-quarters of an hour. The front of the chest and the inside of the thighs take up the solution most readily.

The creasote I give in large draughts of hot water, as hot as can be taken. I begin with drop doses, and run it up to thirty or forty drops a day. I have had to intermit it a few times on account of a smoky condition of the urine, but usually patients bear it well.

To sum up the result of my treatment by this method, I may say that, of the ten cases, one is apparently entirely well; three are apparently approaching a cure, and will probably get entirely well; four have had the disease arrested, and are at present in a very comfortable condition; and two have had relapses after having been very much improved, and are at present laboring under acute symptoms. In all the cases there has been a large increase in weight, ranging from six to twenty-two pounds.

I may say further, that the cases have not been selected. I have included in my report all the cases of tuberculosis which I have been able to induce to try the treatment, and which I have been able to keep under observation for any length of time, with a single exception, and that case had both abdominal and pulmonary tuberculosis in the advanced stage when I began the treatment. Upon it the treatment had no beneficial effect that I could observe, although the patient thought that the inunctions eased her, and continued them until her death. She, however, refused to take the creasote. I have a considerable number of cases under treatment by this method at present, all of which are apparently doing well, but they have not been under observation long enough to justify me in including them in my report.



